

REMARKS

Claims 3, 7, 10, 12, 15, 21 and 25 have been cancelled; thus, claims 1-2, 4-6, 8-9, 11, 13-14, 16-20, and 22-24 are all the claims pending in the application. Claims 1-25 stand rejected on prior art grounds and upon informalities. Claims 4, 11, 16, and 22 stand rejected under 35 U.S.C. ' 101. Applicants respectfully traverse these rejections based on the following discussion.

I. The 35 U.S.C. ' 112, Second Paragraph, Rejection

Claims 1-25 stand rejected under 35 U.S.C. ' 112, second paragraph. Specifically, the Office Action argues that there is insufficient antecedent basis for the limitation "said devices" in independent claims 1, 8, 13, and 19. Applicants have amended independent claims 1, 8, 13, and 19 to remove the word "said" before the word "devices"; therefore, such claims define "determining production quantities of devices planned to be manufactured".

Further, the Office Action argues that there is insufficient antecedent basis for the limitation "said forecasting" in dependent claims 7, 12, 13, and 25. Applicants have amended the claims to remove the words "said forecasting".

Therefore, Applicants submit that the rejections based on insufficient antecedent basis are moot in light of the currently amended claims. As such, the Examiner is respectfully requested to reconsider and withdraw these rejections.

II. The 35 U.S.C. ' 101 Rejection

Claims 4, 11, 16, and 22 stand rejected under 35 U.S.C. ' 101 because the Office Action argues that the claims fail to produce a tangible result. Specifically, the Office Action states that

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"It is the position of the Examiner further comprising identifying substitute components does not provide a tangible result if this step occurs *after* providing total volume of assembly" (Office Action, p. 3, para. 4 (emphasis added)). The Office Action further acknowledges that "However ... if this step inherently occurs *before* providing total volume of assembly this 101 rejection would be moot" (Office Action, p. 3, para. 4 – p. 4, para. 1 (emphasis added)).

As such, Applicants have amended dependent claims 4, 11, 16, and 22 to define "further comprising, before said providing of said total volume of assembly components required, identifying substitute components". Accordingly, the Examiner is respectfully requested to reconsider and withdraw these rejections.

III. The Prior Art Rejections

Claims 1, 3, 5-6, 8, 10, 19, 21, and 23-24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamada (U.S. Patent No. 5,796,614, in view of Costanza (U.S. Patent No. 6,594,535). Claims 2, 7, 9, 12-15, 17-18, 20, and 25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamada, in view of Costanza, in further view of Kawashima, et al. (U.S. Patent No. 5,168,445), hereinafter referred to as Kawashima. Claims 4, 11, 16, and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamada, in view of Costanza, in further view of Horne (U.S. Patent No. 7,058,587). Applicants respectfully traverse these rejections based on the following discussion.

The claimed invention provides a method of forecasting component requirements for devices being manufactured. In the rejection, the Office Action argues that Kawashima discloses forecasting the volume of sales occurring before the delivery lead time. However, the cited prior

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art fails to teach or suggest removing ordering parameters, including leadtimes. Instead, Kawashima makes predictions using a leadtime ordering parameter because the volume of sales occurring before the delivery lead time cannot be predicted without knowing what the delivery lead time is. In addition, Kawashima does not teach or suggest removing ordering parameters, including order minimums and order maximums. Instead, Kawashima teaches away from the claimed invention because such parameters are required in order to maintain an adequate supply of goods and to avoid keeping excess supply. Therefore, as explained in greater detail below, Applicants respectfully submit that the prior art of record does not teach or suggest the claimed invention.

Office Action expressly acknowledges that Yamada and Costanza both fail to disclose the claimed feature “wherein said forecasting is performed using a minimum profile technique that removes all ordering parameters including order minimums, order maximums, leadtimes, transit times, and order sizing” as defined in independent claim 13 and dependent claims 7, 12, and 25 (Office Action, p. 10, para. 1). However, the Office Action argues that such features are disclosed by Kawashima (Office Action, p. 10, para. 1). Specifically, the Office Action argues that Kawashima discloses forecasting the volume of sales occurring before the delivery lead time (Kawashima, col. 2, lines 41-43).

First of all, Applicants submit that Kawashima does not teach a method of forecasting “component requirements for devices being manufactured”. Instead, Kawashima teaches forecasting a “volume of sales”.

Secondly, Applicants submit that in order to predict the volume of sales *occurring before the delivery lead time*, it is necessary to know what the delivery lead time is. Therefore, the delivery lead time is not removed as an ordering parameter.

Specifically, Kawashima discloses an automatic ordering system, wherein goods are ordered by a retailer so that depleted inventory may be replenished. The method of Kawashima predicts the volume of sales that occur before the delivery lead time, so that the retailer can estimate how much goods need to be ordered to replenish depleted inventory. Therefore, Kawashima teaches that in order to determine how many goods to order, it is necessary to predict the volume of goods that will be sold before the new goods will be delivered. Applicants submit that there is no way to predict this unless you know how long it will take for the new goods to be delivered (i.e., the leadtimes). Thus, the leadtimes are a required forecasting parameter.

To the contrary, the claimed invention removes leadtimes as a forecasting parameter (independent claim 13 and dependent claims 7, 12, and 25). As discussed in paragraphs 0035 – 0036 of Applicants' disclosure, to make the component forecast more easily understood in actual volumes, a "min-profile" technique is used to remove all ordering parameters, which tend to distort the actual needs with order sizes, minimums, maximums, etc. MRP (Materials Requirement Planning) programs use many explode parameters, such as leadtime, transit time, order sizing, etc. Leadtimes and Transit times offset the demands for all components, thus making their demand earlier in time to compensate for the time it takes to build and transport parts. These offset days, at multiple levels, will vary depending on the supplier location and type of transportation used, thereby more accurately tracking true demand and impact from top schedule changes. In addition, order sizing parameters group the demand at all levels to provide

an economical purchase quantity. A component's physical size as well as its dollar value will affect the lot size quantities. Typically, large or high dollar parts will be packaged in smaller order size quantities; as the inventory costs are greater. When making a parameter change, many other variables are affected in determining the calculated parts requirements.

Therefore, in one embodiment, the invention provides the min-profile feature to create the ability to play "what if" scenarios. The min-profile feature provides the ability to turn off all the optional parameters, and only utilize the minimal required parameters (min-profile) for the MRP explode. The min-profile process provides the users with a better understanding of the effects of machine build plan changes or parameter changes on components lower in the BOM (Bill of Material) structure. This is done by reviewing the existing machine build plan dates and quantities 200, reviewing the total requirements (exploded through the structure) of a particular part number 202, changing the machine build plan quantities or another parameter, and reviewing the critical part number which was previously calculated. This allows the net quantity change to be more clearly understood. This is particularly important, for parts that are constrained or have excess inventory.

Accordingly, unlike the claimed invention, the cited prior art fails to teach or suggest removing ordering parameters, including leadtimes. Instead, Kawashima makes predictions using a leadtime ordering parameter because the volume of sales occurring before the delivery lead time cannot be predicted without knowing what the delivery lead time is. Therefore, it is Applicants position that the cited prior art fails to teach or suggest the claimed feature "wherein said forecasting is performed using a minimum profile technique that removes all ordering

parameters including order minimums, order maximums, leadtimes, transit times, and order sizing” as defined in independent claim 13 and dependent claims 7, 12, and 25.

In addition, the Office Action argues that one of ordinary skill in the art would have been motivated to combine the teachings of Kawashima with Yamada and Costanza “in order to maintain *adequate supply of goods* when the demand of said goods changes frequently and *avoid keeping excess supply* when demand is low” (Office Action, p. 9, para. 4 (emphasis added)).

Applicants submit that the asserted “motivation to combine” cannot be performed without using “order minimums” and “order maximums” as ordering parameters (as discussed above, the claimed invention removes all ordering parameters, including order minimums and order maximums).

Specifically, Kawashima discloses an automatic ordering system, wherein goods are ordered by a retailer so that depleted inventory may be replenished. Thus, “order minimums” are necessary in order to “maintain adequate supply of goods”. Likewise, “order maximums” are necessary in order to “avoid keeping excess supply”.

Therefore, Applicants submit that Kawashima does not teach or suggest removing ordering parameters, including order minimums and order maximums. Instead, Kawashima teaches away from the claimed invention because such parameters are required in order to maintain an adequate supply of goods and to avoid keeping excess supply. Accordingly, contrary to the position taken in the Office Action, one of ordinary skill in the art would have been motivated to combine the teachings of Kawashima with Yamada and Costanza.

Therefore, it is Applicants' position that the proposed combination of Kawashima, Yamada, and/or Costanza would not have resulted in the claimed invention; and as such, independent claims 1, 8, 13 and 19 are patentable over the prior art of record. Further, it is Applicants' position that dependent claims 2, 4-6, 9, 11, 14, 16-18, 20, and 22-24 are similarly patentable, not only because of their dependency from a patentable independent claims, but also because of the additional features of the invention they defined. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections.

II. Formal Matters and Conclusion

With respect to the rejections to the claims, the claims have been amended, above, to overcome these rejections. In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections to the claims.

In view of the foregoing, Applicants submit that claims 1-2, 4-6, 8-9, 11, 13-14, 16-20, and 22-24, all the claims presently pending in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to

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discuss any other changes deemed necessary. Please charge any deficiencies and credit any overpayments to Attorney's Deposit Account Number 50-0510.

Respectfully submitted,

Dated: 11/30/06



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